

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): **Conducting and Magnetizing Double Spiral Capacitor-inductor**, comprising:

an arrangement to combine an electric capacitor and an electric inductor by means of a conducting and magnetizing double spiral, the structure of said device made by spooling an insulated and at same time conducting and magnetizing double thin band, it is consisting of two parallel similar or not similar, electrically insulated on both sides and rims, as well as conducting and, at least one of them, magnetizing bands, placed one on top of the other, into a double spiral disk or roll that operates as an electromagnetic device having properties both of a capacitor and an inductor;

an electric current, mostly alternating current but in some possible applications direct current or both of them, being led to the two said bands of said double spiral disk or roll via two insulated electrodes, that are connected to their places on different said bands and opposite ends of those, so that one electrode lies at the center end of one said band, and the other electrode at the rim outer end of the other said band[[,]] the center electrode also being able to lie at the outer band, in which case the rim electrode must be lying at the inner band;

[[the]] said spiral disk or roll may have or not an insulated casing, depending on [[an]] applications of the [[said]] invention;

said electrodes having insulation against other metal surfaces except those they are attached to;

the flat and curved sides of [[the]] said double spiral disk or roll having an insulation to prevent shortcuts between the band loops or between them and other conducting objects;

said [[an]] alternating electric current from an electric source being connected on said two electrodes[[,]] and always circulating in the same rotational direction in [[the]] said both bands;

a resistive load being connected between the ends, that are without electrodes, of said two bands when needed;

[[the]] said double spiral band decreasing parts and their room by functioning operating at the same time both as a capacitor and an inductor as well as giving some applications that a capacitor and an inductor together have not allowed until this.

Claim 2 (currently amended): [[A]] The Conducting and Magnetizing Double Spiral Capacitor-inductor, according to claim 1 having:

the free ends without connection to said electric source of [[the]] said bands being totally insulated from each others, except via said electric source, when allowed only alternating current to circulate in [[the]] said bands and flowing through [[the]] said double band in the same rotational direction;

[[the]] said bands having a galvanic connection [[with]] made by a resistive load between the otherwise free ends of [[the]] said bands when needed a direct current to circulate in [[the]] said bands to create an unalterable pre-magnetic field as a proper spiral magnet, or using both alternating and direct current together in [[the]] said invention bands when needed to;

an alternating current, when exciting [[the]] said invention, generating an alternating electromagnetic field in [[the]] said double spiral and around it, the magnetic field protruding from [[the]] said double spiral disk or roll perpendicularly to its flat sides, but the electric field existing perpendicularly between every two band loop, regardless of if the band loops belong to the same or different said double spiral loops, getting always alternate potential +, -, +, -, ... or -, +, -, +, ... compared with each others;

the capacitive and inductive reactance's being equal in [[the]] said invention with due dimensions eliminating each others and allowing only resistance to be left, needing no extra component to balance an impedance of [[the]] said invention and having no reactive power[[.]] ;

[[the]] said two bands including at most three layers that are: a conducting layer of a good conductor substance, a magnetizing layer that also conducts, and an insulating layer being, when desired, magnetizing at same time as some magnetizing and insulating ferro-oxides, to increase the permeability of [[the]] said double spiral disk, at least one of ~~or the~~ said two spiral bands ~~or one of them~~ including [[only]] at least a magnetizing and at the same time conducting layer and an insulating layer that may magnetize[[s]], too, if wanted to[[.]] ;

Claim 3 (currently amended): [[A]] The Conducting and Magnetizing Double Spiral Capacitor-inductor, according to claim 2 used:

as substitutes for alternating current motor coils in electric motors at the stator and rotor;

the arrangement, structure, and operation of said substitutes being as they are depicted in claim 2;

whereby electric motors working more effectively consuming no or but a little reactive power.

Claim 4 (currently amended): [[A]] The Conducting and Magnetizing Double Spiral Capacitor-inductor, according to claim 2 used:

as an adjustable double spiral capacitor-inductor with an arrangement of changing axial position of one of said two bands in relation to the other of said double spiral depicted in claim 2, and a structure including immovable spiral band fixed inside its immovable casing, installed in its place, and imbricately with said immovable spiral band a movable spiral band fixed inside its movable casing that can allow an operation when being moved back and forth with an adjusting knob means to change both capacitance and inductance of [[the]] said double spiral, both of said casings having a cylindrical brim and a plane bottom, the bottoms of said casings being outwards from said two bands and their open sides with said bands being towards each others;

[[the]] said knob adjusting means being fixed at the outer end of a screw-stick, which in its turn being put through a bearing into a tube-case being fixed at its inner end perpendicularly [[in]] at the inside center of [[the]] said immovable casing, said tube-case having a screw thread inside it;

[[the]] said spiral bands being fixed at the bottoms of their said casings with a substance strong and insulative enough;

between [[the]] said casings at their rims being longitudinal straight furrows fitting interlocked to each others to keep [[the]] said movable casing from rotating but allowing it to move axially;

[[the]] said insulation of [[the]] said two bands having to endure chafing when adjusting, or [[the]] said bands having to be separated from each others by a sufficient air gap to prevent chafing and shortcuts, said air gap substituting said insulation.

Claim 5 (currently amended): [[A]] The Conducting and Magnetizing Double Spiral Capacitor-inductor, according to claim 2 used:

as a capacitor-inductor microphone-speaker with an arrangement of changing axial position of one of the two spirals of the double spiral depicted in claim 2, and a structure including immovable spiral band fixed inside its immovable casing, installed in its place, and imbricately with said immovable spiral band a movable spiral band fixed inside its movable casing, the movable casing with its expansion plate rim being suspended with radial springs between [[the]] said rim and [[the]] said immovable casing allowing the device to operate as a microphone as well as a speaker;

[[the]] said spiral bands being fixed at the bottoms of their said casings with a substance strong and insulative enough;

[[the]] said movable casing with its spiral band vibrating when sending or receiving sound waves;

[[the]] said bands always during operation being separated from each others by a sufficient air gap between them to prevent chafing and shortcuts;

when ~~the device functioning~~ said microphone-speaker operating as a microphone, the entering sound waves making [[the]] said movable casing with its said spiral band to vibrate generating an alternating electric current in the fixed spiral band, at least one of said bands needing a pre-magnetization with a direct current or by making [[the]] at least one magnetizing layer of [[the]] said bands permanently magnetized;

[[the]] said generated alternating current being amplified for its purpose;

and when [[the]] said microphone-speaker functioning operating as a speaker, [[the]] an amplified alternating current imitating [[the]] a sound to be transmitted being circulating in [[the]] said fixed band generating a corresponding magnetic field making [[the]] said vibrating band and its said casing to transmit the purported sound, using pre-magnetization for [[the]] at least one of said fixed bands when needed.

Claim 6 (currently amended): [[A]] The Conducting and Magnetizing Double Spiral Capacitor-inductor, according to claim 2 applied:

to an electromagnetic pulse generator, arranging said generator by, with its casing, [[being]] getting it installed under a road surface, or temporarily placed on the road with its driving slopes, operating to stop speeding vehicles;

[[an]] a strong alternating current being led with leads from ~~a public network or an other strong an~~ alternating current electric source via two said electrodes to [[the]] said double band;

the lid of [[the]] said casing being of dielectric substance to let the electromagnetic radiation going through, but the bottom and the cylinder part of [[the]] said casing being of conducting or both conducting and magnetizing material to align the radiation into the purported direction and prevent it from dispersing;

[[the]] said generator emitting a strong electromagnetic pulse to ruin [[the]] electronic circuits of the said vehicle and stop it;

[[the]] said generator being triggered manually, electrically, magnetically, or electromagnetically;

for lifting and moving [[the]] said generator being used a lifting tube fitted perpendicularly [[in]] at the center of the bottom of [[the]] said casing and jutting upwards with a screw thread inside it as well as a lifting hook screwed into the lifting tube when lifting.

Claim 7 (currently amended): [[A]] The Conducting and Magnetizing Double Spiral Capacitor-inductor, according to claim 2 applied:

as an arrangement of buffer components as installed or plugged into [[the]] a public electric source in numbers, in all three phases when needed [[,]] to function as buffer components;

[[the]] said invention components with usable dimensions being able to transmit enough alternating current power for devices needing it but stopping any direct current;

[[the]] said invention components being also able to smooth voltage and current pulses going through the electric net[[,]] as during a thunder storm or other disturbances;

with large dimensions and plurality [[the]] said invention being able to prevent large electric nets from collapsing, when an electric disturbance happens during high consumption, by giving the safety system a critical time to react without panic.

Claim 8 (currently amended): [[A]] The Conducting and Magnetizing Double Spiral Capacitor-inductor, according to claim 2 used:

as an arrangement of a band-pass or band-reject filter depending on [[its]] the circuit diagram and the dimensions of [[the]] said filter, whereby reducing electric components;

the structure and operation of said filter being as depicted in claim 2.

Claim 9 (currently amended): [[A]] The Conducting and Magnetizing Double Spiral Capacitor-inductor, according to claim 2 used:

as an arrangement of an electromagnetic emitter transmitting electromagnetic waves of a wavelength depending on the dimensions of [[the]] said emitter;

the structure of said emitter having an insulated metal casing, magnetizing or not, open on one of the flat sides of [[the]] said emitter in [[the]] a transmitting direction;

[[the]] said emitter being used operating as a beamed transmitting antenna, whereby reducing number of components of some transmitting devices and making them cheaper and more simple.